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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,659	09/21/2001	Pradeep K. Agarwal	W002.PAT-12	5569

7590 03/28/2003
EMERY L. TRACY
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EXAMINER

MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

6

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/960,659

Applicant(s)
P. AGARWAL et al.

Examiner
Kishor Mayekar

Art Unit
1753



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sep 21, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 26, the dependency is incorrect for being dependent on canceled claim.

Claim Rejections - 35 USC § 102 and § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by HAAS et al. (3,933,608) in light of OLSEN (5,258,165). HAAS' invention is directed to a method for the decomposition of hydrogen sulfide to elemental sulfur and hydrogen at a low temperature by exposing a gas containing the hydrogen sulfide to a silent electrical discharge. However, HAAS does not disclose that the use of corona discharge for the decomposition. CONRAD discloses in col. 1, lines 13-34 that the silent discharge is also known as corona discharge.

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6. Claims 24, 25 and 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over HAAS '608 in light of CONRAD '003. HAAS further discloses in paragraph crossing cols. 2 and 3 that the exposure of the hydrogen sulfide-containing gas is effected at -40°C up to 61°C or more. Because the prior art discloses a value within the claimed range, the claims are anticipated. As to the overlapping of the claimed range, the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the reference's teachings because it has been held that a prima case of obviousness exists where claimed ranges overlap or lie inside ranges disclosed by the prior art, *In re Wertheim* 191 USPQ 90; *In re Woodruff* 16 USPQ 1934.

7. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over HAAS '608 in light of CONRAD '003 as applied to claims 24 and 25 above, and further in view of CA 675292 A and Applicant's admission. HAAS further discloses in col. 2, lines 58-66 that the hydrogen sulfide-containing gas is gas resulted from an

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industrial process either as the principal H_2S abating operation or as a secondary removal operation. CA '292, a reference cited by Applicant, shows in a method of separating moisture and hydrogen sulfide from natural gas streams the provision of adsorbent means comprising a first adsorbent having a first predetermined temperature and a second adsorbent having a second temperature greater than the first predetermined temperature (paragraph crossing pages 11 and 12). Applicant admits in the last paragraph of page 2 of the specification it is known that the fluidized bed adsorption process is better than the fixed bed adsorption in the removal of H_2S . The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the reference's teachings as suggested by CA '292 and Applicant's admission because the selection of any of known adsorption means for the removal of H_2S is within the level of ordinary skill in the art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (703) 308-0477. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM.

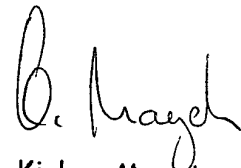
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on (703) 308-3322. The fax phone number for this Group is (703) 872-9310 (non-after finals) or 872-9311 (after final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Kishor Mayekar
Primary Examiner
Group 1700

KM

March 19, 2003